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Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 7

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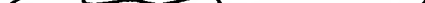
Application Number	10/798,026
Filing Date	March 11, 2004
First Named Inventor	Kazuo Hokkirigawa et al.
Art Unit	3746
Examiner Name	Not yet assigned KOCZO
Attorney Docket Number	051319/0163

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No.¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code² (if known)			
mil		US- 4,115,283	09-19-1978	Needham	
		US- 4,196,013	04-01-1980	Dannenberg et al.	
		US- 4,466,932	08-21-1984	Koyama et al.	
		US- 4,699,573	10-13-1987	Petrie et al.	
		US- 5,236,784	08-17-1993	Kobayashi et al.	
		US- 5,346,737	09-13-1994	Takahashi et al.	
		US- 5,360,633	11-01-1994	Dean	
		US- 5,432,213	07-11-1995	Kim et al.	
		US- 5,549,394	08-27-1996	Nowak et al.	
		US- 5,641,275	06-24-1997	Klein et al.	
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		US- 5,730,916	03-24-1998	Kunzel et al.	
		US- 5,762,699	06-09-1998	McGovern	
		US- 5,879,791	03-09-1999	Kato et al.	
		US- 5,916,499	06-29-1999	Murayama et al.	
		US- 6,033,118	03-07-2000	Asai et al.	
		US- 6,095,770	08-01-2000	Obata et al.	
		US- 6,109,887	08-29-2000	Takura et al.	
		US- 6,193,793B1	02-27-2001	Long et al.	

FOREIGN PATENT DOCUMENTS

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Examiner Signature		Date Considered	1-3-05
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mk		US- 6,342,088B1	01-29-2002	Klatt et al.	
		US- 6,395,677B1	05-28-2002	Hokkirigawa et al.	
		US- 6,448,307B1	09-10-2002	Medoff et al.	
		US- 6,472,042B1	10-29-2002	Dibbern et al.	
		US- 6,494,928B1	12-17-2002	Hokkirigawa et al.	
		US- 2002/0111388A1	08-15-2002	Hokkirigawa et al.	
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		US- 2002/0114549A1	08-22-2002	Hokkirigawa et al.	
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		US- 2002/0152694A1	10-24-2002	Hokkirigawa et al.	
		US- 2002/0152697A1	10-24-2002	Hokkirigawa et al.	
		US- 2002/0174605A1	11-28-2002	Hokkirigawa et al.	
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		US- 5,281,032	01-25-1994	Slocum	
		US- 2003/0134104A1	07-17-2003	Hokkirigawa et al.	
		US- 2003/0220421A1	11-27-2003	Hokkirigawa et al.	
		US- 6,550,508B1	04-22-2003	Yamaguchi et al.	
		US- 5,591,279A	01-07-1997	Midorikawa et al.	
		US- 6,573,215B2	06-03-2003	Hokkirigawa et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
mk		SU 1 1835412 A1	08/23/1993	Bashtannik, P.		✓
mk		JP-2001-304263	10/31/2001	(in Japanese)		✓

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Application Number	10/798,026
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First Named Inventor	Kazuo Hokkirigawa et al.
Art Unit	3746
Examiner Name	Not yet assigned KOCZO
Attorney Docket Number	051319/0163

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FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ^o
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
1		JP 07 268126	10/17/1995	NTN Corp.		✓
2		JP 05 032707	09/02/1993	Japan Steel Works Ltd.		✓
2		JP20002-266052A	09/26/2000	Nippon Seiko KK		✓
		JP 40 18458	05/10/1974	(in Japanese)		
		JP 64 82703	03/28/1989	(in Japanese)		
		EP 0 182703A1	11/08/1985	Ectang, Bernard		

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Date Considered

1-3-25

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		Country Code ³ Number ⁴ Kind Code ⁶ (if known)				
mk		DT 23 45 460	03/20/1975	Seydel, Wolfgang		✓
		JP 2001-89273	03/04/2001	(in Japanese)		
mk		JP-10-219031	08/18/1998	(in Japanese)		✓
ml		WO 93/23459	11/25/1993	Hoechst Celanese Corp		✓
mk		DT 2119917	04/23/1971	Deutsche Star		
		EP 1 344 791 A1	09/17/2003	Minobee Co. Ltd		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	10/798,026
		Filing Date	March 11, 2004
		First Named Inventor	Kazuo Hokkirigawa et al.
		Art Unit	3746
		Examiner Name	Not yet assigned <i>LCRZ</i>
Sheet 5	of 7	Attorney Docket Number	051319/0163

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>mc</i>		European Search Report - Application No. EP 03 44 7156	
		H. IIZUKA et al., "Mechanical Properties of Porous Carbon Materials I.E. Woodceramics," 15 Journal of Materials Science Letters, 1770-72 (1996)	
		K. HOKKIRIGAWA, "Wear Mode Map of Ceramics," Wear 151, pages 219-228	
		K. HOKKIRIGAWA, "Wear Mode Map of Ceramics," Wear of Materials 353-358 (1991)	
		K. ADACHI et al., "The Wear Mechanism of Silicon Nitride In Rolling-Sliding Contact," Wear of Materials, pages 333-338 (1991)	
		K. HOKKIRIGAWA, "Advance Techniques For In-Situ Observations of Microscopic Wear Processes," Surface Modification Technologies VIII, pages 93-105 (1995)	
		K. ADACHI et al., "The Wear Mechanism of Silicon Nitride in Rolling-Sliding Contact," Wear, 151, pages 291-300 (1991)	
		H. KITSUNAI et al., "Transitions of Microscopic Wear Mechanism for Cr2O3 Ceramic Coatings During Repeated Sliding Observed in a Scanning Electron Microscope Tribosystem," Wear, 151, (1991) pages 279-289	
		K. HOKKIRIGAWA, "Development and Application of Rice Bran Ceramics As A New Tribo-Material," Proceedings of the International Tribology Conference, Nagasaki, 2000, pages 31-38	
		K. HOKKIRIGAWA et al., "Development of New Linear Dry Sliding Bearing By Using RB Ceramics," Proceedings of the International Tribology Conference, 2000, pages 845-849	

Examiner Signature	<i>[Signature]</i>	Date Considered	1-3-05
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Sheet 6 of 7	Attorney Docket Number		051319/0163

NON PATENT LITERATURE DOCUMENTS			
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<i>mk</i>		K. HOKKIRIGAWA, "Friction and Wear Properties of New Tribo-Materials "RB Ceramics" Made From Rice Gran," Proceedings of the International Tribology Conference, pages 839-843 (2000)	
		T. AKAGAKI, "Friction and Wear of Woodceramics Under Oil and Water Lubricated Sliding Contacts," Journal of Porous Materials 6, pages 197-204 (1999)	
		M. IMURA et al., "Large Magnetoresistance Effect in Isotropic Polycrystalline Pervoskite-Like La-AM-Mn-O (AM = K, Rb) Ceramics," Journal of the Ceramic Society of Japan 104, pages 151-154 (1996)	
		D.F. DIAO, "Fracture Mechanisms of Ceramic Coatings in Indentation," Journal of Tribology (1994), pages 860-869	
		K. HOKKIRIGAWA, "Material Report R&D Development of Hard Porous Carbon Materials "RB Ceramics" by Using Rice Bran as Material," Functional Materials, May 1997, Vol. 17, No. 5, pages 24-28	
		S. TOSHINORI, "Tetrafluoroethylene Resin Composition," Patent No. JP11021407, Abstract	
		T. Kato et al., "Wear Mode Transition of Hard Films On Al Alloys Under Variable Normal Load," Surface Engineering 1997 Vol. 13 No. 3, pgs. 204-205	
		European Search Report - EP 85 40 2169	
		European Search Report - EP 03 07 5621	
		International Search Report - PCT/US93/02051	

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		Examiner Name	Not Yet Assigned <i>Kacz</i>
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<i>ML</i>		European Patent Office - Patent Abstract of Japan, Application No. 10049714, Pub. date 02/20/98 for On-Board System	
		EP - Communication dated 07/08/2004 re. EP 1-251399.	
		European Communication dated August 8, 2004 re: 03005714. 5-1267	

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